



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0092; Directorate Identifier 2012-NM-067-AD]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Embraer S.A. Model ERJ 170 and ERJ 190 airplanes. This proposed AD was prompted by reports of chafing between the auxiliary power unit (APU) electronic starter controller (ESC) power cables and the airplane tail cone firewall. This proposed AD would require a detailed inspection for damage to the insulation and inner conductors of the APU ESC power cables, installing new grommet support in the tail cone firewall, and corrective actions if necessary. We are proposing this AD to detect and correct damage to the APU ESC power cable harness, which if not corrected, could result in reduced structural integrity of the fuselage and empennage in the event of fire penetration through the firewall.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the

regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-2768; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0092; Directorate Identifier 2012-NM-067-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian Airworthiness Directives 2012-03-03 and 2012-03-04, both dated April 13, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

It has been found the occurrences of chafing between the Auxiliary Power Unit (APU) Electronic Starter Controller (ESC) power cables (harness W205) and the airplane tail cone firewall due to the grommet installed in the tail cone firewall moves out of its place. This condition, if not corrected, may result in reduced structural integrity of the fuselage and empennage in an event of fire penetration through the firewall.

The required actions include a detailed inspection for damage to the harness insulation and inner conductors of the APU ESC power cables, installing a new grommet support in the tail cone firewall, and corrective actions if necessary. Corrective actions include repairing the harness W205 insulation or replacing the harness W205 of the APU ESC power cables with a new harness. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Embraer has issued Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012 (for Model ERJ 170 airplanes); Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012 (for Model ERJ 190 airplanes); and Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012 (for Model ERJ 190-100 ECJ airplanes). The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between This AD and the MCAI or Service Information

Although Brazilian Airworthiness Directive AD 2012-03-04, dated April 13, 2012, specifies a compliance time of “within 3,000 flight hours (FH)” after the effective date of this AD for performing a detailed inspection on the APU ESC power cables for damage, this AD requires the action be done within 3,000 flight hours (FH) or 18 months after the effective date of this AD, whichever occurs first. This proposed compliance time aligns with the compliance time listed in Brazilian AD 2012-03-03, dated April 13, 2012.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 253 products of U.S. registry. We also estimate that it would take about 15 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$0 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not

control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$322,575, or \$1,275 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Embraer S.A.: Docket No. FAA-2013-0092; Directorate Identifier 2012-NM-067-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplane models identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Embraer S.A. Model ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes; certificated in any category; as identified in Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012.

(2) Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; certificated in any category; as identified in Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012; and Embraer Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by reports of chafing between the auxiliary power unit (APU) electronic starter controller (ESC) power cables and the airplane tail cone firewall.

We are issuing this AD to detect and correct damage to the APU ESC power cable harness, which could result in reduced structural integrity of the fuselage and empennage in the event of fire penetration through the firewall.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Detailed Inspection, Installation, and Corrective Actions

Within 3,000 flight hours or 18 months after the effective date of this AD, whichever occurs first: Do a detailed visual inspection for damage to the insulation and inner conductors of the APU ESC power cables (harness W205), in accordance with the Accomplishment Instructions of Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012 (for Model ERJ 170 airplanes); Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012 (for Model ERJ 190 airplanes except for Model ERJ 190-100 ECJ airplanes); and Embraer Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012 (for Model ERJ 190-100 ECJ airplanes).

(1) If no damage is found, before further flight, install a new grommet support having part number (P/N) 191-21716-003 in the tail cone firewall, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012 (for Model ERJ 170 airplanes); Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012 (for Model ERJ 190 airplanes except for Model ERJ 190-100 ECJ airplanes); and Embraer Service Bulletin

190LIN-53-0059, Revision 01, dated March 16, 2012 (for Model ERJ 190-100 ECJ airplanes).

(2) If any damage is found during any inspection required in paragraph (g) of this AD, that affects only the insulation of harness W205 of the APU ESC power cables: Before further flight, repair the insulation and install a new grommet support having P/N 191-21716-003 in the tail cone firewall, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012 (for Model ERJ 170 airplanes); Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012 (for Model ERJ 190 airplanes except for Model ERJ 190-100 ECJ airplanes); or Embraer Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012 (for Model ERJ 190-100 ECJ airplanes).

(3) If any damage is found during any inspection required in paragraph (g) of this AD that affects the insulation of harness W205 of the APU ESC power cables and the inner conductors: Before further flight, replace the harness with a new harness and install a new grommet support having P/N 191-21716-003 in the tail cone firewall, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012 (for Model ERJ 170 airplanes); Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012 (for Model ERJ 190 airplanes except for Model ERJ 190-100 ECJ airplanes); and Embraer Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012 (for Model ERJ 190-100 ECJ airplanes).

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-227-2768; fax: 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(i) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian Airworthiness Directives 2012-03-03 and 2012-03-04, dated April 13, 2012; and the service information specified in paragraphs (i)(1)(i), (i)(1)(ii), and (i)(1)(iii) of this AD; for related information.

(i) Embraer Service Bulletin 170-53-0093, Revision 01, dated March 16, 2012.

(ii) Embraer Service Bulletin 190-53-0054, Revision 01, dated March 16, 2012.

(iii) Embraer Service Bulletin 190LIN-53-0059, Revision 01, dated March 16, 2012.

(2) For service information identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. Issued in Renton, Washington, on February 11, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2013-04045 Filed 02/21/2013 at 8:45 am; Publication Date: 02/22/2013]